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RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/018,892

DATE: 08/30/2002
TIME: 15:38:02

Input Set : A:\2577-112.txt
Output Set: N:\CRF4\08302002\J018892.raw

ENTERED

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3 <110> APPLICANT: Kwang, Hwei-Sing
4      Liu, Wei
5      Low, Su-Shing Sharon
6      Loh, Hilda Kwanyeng
8 <120> TITLE OF INVENTION: Detection of Salmonella Enteritidis
10 <130> FILE REFERENCE: 2577-112
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/018,892
C--> 12 <141> CURRENT FILING DATE: 2002-08-06
12 <150> PRIOR APPLICATION NUMBER: PCT/SG99/00061
13 <151> PRIOR FILING DATE: 1999-06-22
15 <160> NUMBER OF SEQ ID NOS: 19
17 <170> SOFTWARE: PatentIn version 3.1
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 505
21 <212> TYPE: DNA
22 <213> ORGANISM: Salmonella enteritidis
24 <400> SEQUENCE: 1
25 attttgtaat atgcgtaaat cagcatctgc agtagcagtt cttgctttaa ttgcatgtgg      60
27 cagtgcacac gcagctggct ttgttggtaa caaagcagag gttcaggcag cggttactat      120
29 tgcagctcag aatacaacat cagccaactg gagtcaggat cctggcttta cagggcctgc      180
31 tgttgctgct ggtcagaaaag ttggtactct cagcattact gctactggtc cacataactc      240
33 agtatctatt gcaggtaaag gggcttcggg atctgggtgg gtagccactg tcccgttcgt      300
35 tgatggacaa ggacagcctg ttttcctgag gcgtattcag ggagccaata ttaatgacca      360
37 agcaaatact ggaattgacg ggcttgacag ttggcgagtt gccagctctc aagaaacgct      420
39 aaatgtccct gtcacaacct ttggtaaatc gaccctgccg gcaggtactt tcactgcgac      480
41 cttctacggt cagcagtatc aaaac                                     505
44 <210> SEQ ID NO: 2
45 <211> LENGTH: 165
46 <212> TYPE: PRT
47 <213> ORGANISM: Salmonella enteritidis
49 <400> SEQUENCE: 2
51 Met Arg Lys Ser Ala Ser Ala Val Ala Val Leu Ala Leu Ile Ala Cys
52 1          5          10          15
55 Gly Ser Ala His Ala Ala Gly Phe Val Gly Asn Lys Ala Glu Val Gln
56          20          25          30
59 Ala Ala Val Thr Ile Ala Ala Gln Asn Thr Thr Ser Ala Asn Trp Ser
60          35          40          45
63 Gln Asp Pro Gly Phe Thr Gly Pro Ala Val Ala Ala Gly Gln Lys Val
64          50          55          60
67 Gly Thr Leu Ser Ile Thr Ala Thr Gly Pro His Asn Ser Val Ser Ile
68 65          70          75          80
71 Ala Gly Lys Gly Ala Ser Val Ser Gly Gly Val Ala Thr Val Pro Phe
72          85          90          95

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75 Val Asp Gly Gln Gly Gln Pro Val Phe Arg Gly Arg Ile Gln Gly Ala
76          100          105          110
79 Asn Ile Asn Asp Gln Ala Asn Thr Gly Ile Asp Gly Leu Ala Gly Trp
80          115          120          125
83 Arg Val Ala Ser Ser Gln Glu Thr Leu Asn Val Pro Val Thr Thr Phe
84          130          135          140
87 Gly Lys Ser Thr Leu Pro Ala Gly Thr Phe Thr Ala Thr Phe Tyr Val
88 145          150          155          160
91 Gln Gln Tyr Gln Asn
92          165
95 <210> SEQ ID NO: 3
96 <211> LENGTH: 128
97 <212> TYPE: PRT
98 <213> ORGANISM: Salmonella enteritidis
100 <400> SEQUENCE: 3
102 Ala Ala Gln Asn Thr Thr Ser Ala Asn Trp Ser Gln Asp Pro Gly Phe
103 1          5          10          15
106 Thr Gly Pro Ala Val Ala Ala Gly Gln Lys Val Gly Thr Leu Ser Ile
107          20          25          30
110 Thr Ala Thr Gly Pro His Asn Ser Val Ser Ile Ala Gly Lys Gly Ala
111          35          40          45
114 Ser Val Ser Gly Gly Val Ala Thr Val Pro Phe Val Asp Gly Gln Gly
115          50          55          60
118 Gln Pro Val Phe Arg Gly Arg Ile Gln Gly Ala Asn Ile Asn Asp Gln
119 65          70          75          80
122 Ala Asn Thr Gly Ile Asp Gly Leu Ala Gly Trp Arg Val Ala Ser Ser
123          85          90          95
126 Gln Glu Thr Leu Asn Val Pro Val Thr Thr Phe Gly Lys Ser Thr Leu
127          100          105          110
130 Pro Ala Gly Thr Phe Thr Ala Thr Phe Tyr Val Gln Gln Tyr Gln Asn
131          115          120          125
134 <210> SEQ ID NO: 4
135 <211> LENGTH: 493
136 <212> TYPE: PRT
137 <213> ORGANISM: Salmonella enteritidis
139 <400> SEQUENCE: 4
141 Leu Thr Gln Asn Asn Leu Asn Lys Ser Gln Ser Ser Leu Ser Ser Ala
142 1          5          10          15
145 Ile Glu Arg Leu Ser Ser Gly Leu Arg Ile Asn Ser Ala Lys Asp Asp
146          20          25          30
149 Ala Ala Gly Gln Ala Ile Ala Asn Arg Phe Thr Ser Asn Ile Lys Gly
150          35          40          45
153 Leu Thr Gln Ala Ser Arg Asn Ala Asn Asp Gly Ile Ser Ile Ala Gln
154          50          55          60
157 Thr Thr Glu Gly Ala Leu Asn Glu Ile Asn Asn Asn Leu Gln Arg Val
158 65          70          75          80
161 Arg Glu Leu Ser Val Gln Ala Thr Asn Gly Thr Asn Ser Asp Ser Asp
162          85          90          95
165 Leu Lys Ser Ile Gln Asp Glu Ile Gln Gln Arg Leu Glu Glu Ile Asp

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166				100				105				110				
169	Arg	Val	Ser	Asn	Gln	Thr	Gln	Phe	Asn	Gly	Val	Lys	Val	Leu	Ser	Gln
170				115				120					125			
173	Asp	Asn	Gln	Met	Lys	Ile	Gln	Val	Gly	Ala	Asn	Asp	Gly	Glu	Thr	Ile
174			130				135					140				
177	Thr	Ile	Asp	Leu	Gln	Lys	Ile	Asp	Val	Lys	Ser	Leu	Gly	Leu	Asp	Gly
178	145					150					155				160	
181	Phe	Asn	Val	Asn	Gly	Pro	Lys	Glu	Ala	Thr	Val	Gly	Asp	Leu	Lys	Ser
182				165						170					175	
185	Ser	Phe	Lys	Asn	Val	Thr	Gly	Tyr	Asp	Thr	Tyr	Ala	Ala	Gly	Ala	Asp
186				180					185					190		
189	Lys	Tyr	Arg	Val	Asp	Ile	Asn	Ser	Gly	Ala	Val	Val	Thr	Asp	Ala	Ala
190			195					200					205			
193	Ala	Pro	Asp	Lys	Val	Tyr	Val	Asn	Ala	Ala	Asn	Gly	Gln	Leu	Thr	Thr
194		210					215					220				
197	Asp	Asp	Ala	Glu	Asn	Asn	Thr	Ala	Val	Asp	Leu	Phe	Lys	Thr	Thr	Lys
198	225					230					235				240	
201	Ser	Thr	Ala	Gly	Thr	Ala	Glu	Ala	Lys	Ala	Ile	Arg	Gly	Ala	Ile	Lys
202				245						250					255	
205	Gly	Gly	Lys	Glu	Gly	Asp	Thr	Phe	Asp	Tyr	Lys	Gly	Val	Thr	Phe	Thr
206				260					265					270		
209	Ile	Asp	Thr	Lys	Thr	Gly	Asp	Asp	Gly	Asn	Gly	Lys	Val	Ser	Thr	Thr
210			275					280					285			
213	Ile	Asn	Gly	Glu	Lys	Val	Thr	Leu	Thr	Val	Ala	Asp	Ile	Ala	Thr	Gly
214		290					295					300				
217	Ala	Thr	Asp	Val	Asn	Ala	Ala	Thr	Leu	Gln	Ser	Ser	Lys	Asn	Val	Tyr
218	305				310						315				320	
221	Thr	Ser	Val	Val	Asn	Gly	Gln	Phe	Thr	Phe	Asp	Asp	Lys	Thr	Lys	Asn
222				325						330					335	
225	Glu	Ser	Ala	Lys	Leu	Ser	Asp	Leu	Glu	Ala	Asn	Asn	Ala	Val	Lys	Gly
226			340						345					350		
229	Glu	Ser	Lys	Ile	Thr	Val	Asn	Gly	Ala	Glu	Tyr	Thr	Ala	Asn	Ala	Thr
230			355					360					365			
233	Gly	Asp	Lys	Ile	Thr	Leu	Ala	Gly	Lys	Thr	Met	Phe	Ile	Asp	Lys	Thr
234		370					375					380				
237	Ala	Ser	Gly	Val	Ser	Thr	Leu	Ile	Asn	Glu	Asp	Ala	Ala	Ala	Ala	Lys
238	385					390					395				400	
241	Lys	Ser	Thr	Ala	Asn	Pro	Leu	Ala	Ser	Ile	Asp	Ser	Ala	Leu	Ser	Lys
242				405						410					415	
245	Val	Asp	Ala	Val	Arg	Ser	Ser	Leu	Gly	Ala	Ile	Gln	Asn	Arg	Phe	Asp
246			420						425					430		
249	Ser	Ala	Ile	Thr	Asn	Leu	Gly	Asn	Thr	Val	Thr	Asn	Leu	Asn	Ser	Ala
250			435					440					445			
253	Arg	Ser	Arg	Ile	Glu	Asp	Ala	Asp	Tyr	Ala	Thr	Glu	Val	Ser	Asn	Met
254		450					455					460				
257	Ser	Lys	Ala	Gln	Ile	Leu	Gln	Gln	Ala	Gly	Thr	Ser	Val	Leu	Ala	Gln
258	465				470						475				480	
261	Ala	Asn	Gln	Val	Pro	Gln	Asn	Val	Leu	Ser	Leu	Leu	Arg			
262				485						490						

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265 <210> SEQ ID NO: 5
266 <211> LENGTH: 90
267 <212> TYPE: PRT
268 <213> ORGANISM: Salmonella enteritidis
270 <400> SEQUENCE: 5
272 Thr Ala Glu Ala Lys Ala Ile Arg Gly Ala Ile Lys Gly Gly Lys Glu
273 1 5 10 15
276 Gly Asp Thr Phe Asp Tyr Lys Gly Val Thr Phe Thr Ile Asp Thr Lys
277 20 25 30
280 Thr Gly Asp Asp Gly Asn Gly Lys Val Ser Thr Thr Ile Asn Gly Glu
281 35 40 45
284 Lys Val Thr Leu Thr Val Ala Asp Ile Ala Thr Gly Ala Thr Asp Val
285 50 55 60
288 Asn Ala Ala Thr Leu Gln Ser Ser Lys Asn Val Tyr Thr Ser Val Val
289 65 70 75 80
292 Asn Gly Gln Phe Thr Phe Asp Asp Lys Thr
293 85 90
296 <210> SEQ ID NO: 6
297 <211> LENGTH: 69
298 <212> TYPE: PRT
299 <213> ORGANISM: Salmonella enteritidis
301 <400> SEQUENCE: 6
303 Lys Glu Gly Asp Thr Phe Asp Tyr Lys Gly Val Thr Phe Thr Ile Asp
304 1 5 10 15
307 Thr Lys Thr Gly Asp Asp Gly Asn Gly Lys Val Ser Thr Thr Ile Asn
308 20 25 30
311 Gly Glu Lys Val Thr Leu Thr Val Ala Asp Ile Ala Thr Gly Ala Thr
312 35 40 45
315 Asp Val Asn Ala Ala Thr Leu Gln Ser Ser Lys Asn Val Tyr Thr Ser
316 50 55 60
319 Val Val Asn Gly Gln
320 65
323 <210> SEQ ID NO: 7
324 <211> LENGTH: 40
325 <212> TYPE: PRT
326 <213> ORGANISM: Salmonella enteritidis
328 <400> SEQUENCE: 7
330 Lys Thr Gly Asp Asp Gly Asn Gly Lys Val Ser Thr Thr Ile Asn Gly
331 1 5 10 15
334 Glu Lys Val Thr Leu Thr Val Ala Asp Ile Ala Thr Gly Ala Thr Asp
335 20 25 30
338 Val Asn Ala Ala Thr Leu Gln Ser
339 35 40
342 <210> SEQ ID NO: 8
343 <211> LENGTH: 27
344 <212> TYPE: PRT
345 <213> ORGANISM: Salmonella enteritidis
347 <400> SEQUENCE: 8
349 Asp Gly Asn Gly Lys Val Ser Thr Thr Ile Asn Gly Glu Lys Val Thr

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350 1          5          10          15
353 Leu Thr Val Ala Asp Ile Ala Thr Gly Ala Thr
354          20          25
357 <210> SEQ ID NO: 9
358 <211> LENGTH: 11
359 <212> TYPE: PRT
360 <213> ORGANISM: Salmonella enteritidis
362 <400> SEQUENCE: 9
364 Ser Thr Thr Ile Asn Gly Glu Lys Val Thr Leu
365 1          5          10
368 <210> SEQ ID NO: 10
369 <211> LENGTH: 22
370 <212> TYPE: DNA
371 <213> ORGANISM: Artificial Sequence
373 <220> FEATURE:
374 <223> OTHER INFORMATION: Forward Primer for the C128 fragment of the fimbrial SEF14
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375          n
377 <400> SEQUENCE: 10
378 tgcagctcag aatacaacat ca
381 <210> SEQ ID NO: 11
382 <211> LENGTH: 21
383 <212> TYPE: DNA
384 <213> ORGANISM: Artificial Sequence
386 <220> FEATURE:
387 <223> OTHER INFORMATION: Reverse Primer for the C128 fragment of the fimbrial SEF14
antige
388          n
390 <400> SEQUENCE: 11
391 gttttgatac tgctgaacgt a
394 <210> SEQ ID NO: 12
395 <211> LENGTH: 26
396 <212> TYPE: DNA
397 <213> ORGANISM: Artificial Sequence
399 <220> FEATURE:
400 <223> OTHER INFORMATION: Forward Primer
402 <400> SEQUENCE: 12
403 aaggatccaa aggtggtgaag gaagga
406 <210> SEQ ID NO: 13
407 <211> LENGTH: 26
408 <212> TYPE: DNA
409 <213> ORGANISM: Artificial Sequence
411 <220> FEATURE:
412 <223> OTHER INFORMATION: Reverse Primer
414 <400> SEQUENCE: 13
415 ccgaattcctt tgtcaccggt cactac
418 <210> SEQ ID NO: 14
419 <211> LENGTH: 26
420 <212> TYPE: DNA
421 <213> ORGANISM: Artificial Sequence
423 <220> FEATURE:

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VERIFICATION SUMMARY

PATENT APPLICATION: US/10/018,892

DATE: 08/30/2002

TIME: 15:38:03

Input Set : A:\2577-112.txt

Output Set: N:\CRF4\08302002\J018892.raw

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L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date